Appln No. 09/825,775
Amdt date August 13, 2004
Reply to Office action of June 15, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of determining an end of a transmitted frame at a receiver on a frame-based communications network comprising:

providing an end of frame format for the transmitted frame having an end of frame plurality of symbols;

filtering a received transmitted frame using filter coefficients matched to the end of frame plurality of symbols to provide a correlation ~~sequence low pass filtered~~ signal;

computing a squared magnitude of the correlation ~~sequence~~ signal;

low-pass filtering the squared magnitude of the correlation ~~sequence~~ signal to provide a low-pass filtered correlation signal;

delaying the low-pass filtered correlation signal to provide a delayed low-pass filtered correlation sequence signal;

multiplying the delayed low-pass filtered correlation signal by a fixed predetermined threshold to provide a multiplied correlation signal; and

comparing the multiplied correlation signal with the low-pass filtered correlation signal to provide a match/no match comparison indicative of the possible end of a transmitted frame.

2. (original) The method of Claim 1, wherein the filtering is linear matched filtering.

3. (currently amended) The method of Claim 1, wherein the filter coefficients are a time-reversed[[,]] complex-conjugated end of frame symbol sequence.

4. (original) The method of Claim 3, wherein the time-reversed complex-conjugated end of frame symbol sequence is a constant-amplitude zero-autocorrelation sequence.

5. (original) The method of Claim 3, wherein the time-reversed complex-conjugated end of frame symbol sequence includes complex symbols drawn from a Quadrature Phase Shift Keying or 4-Quadrature Amplitude Modulation constellation.

6. (currently amended) The method of Claim 1, wherein the multiplying includes first computing 10*log10(.), or an approximation of 10*log10(.), of each low-pass filtered correlation signal operand to provide a plurality of low-pass filtered correlation signal log operands and then adding each of the plurality of low-pass filtered correlation signal log operands.

7. (original) The method of Claim 1, wherein the comparing includes performing a comparison a predetermined number of times before an end of a transmitted frame is determined.

8. (original) A method of determining an end of a transmitted frame at a receiver on a frame-based communications network comprising:

providing an end of frame format for the transmitted frame having an end of frame plurality of symbols;

linear matched filtering a received transmitted frame using filter coefficients matched to the end of frame plurality of symbols to provide a correlation sequence, the filter coefficients being a time-reversed complex-conjugated end of frame symbol sequence including complex symbols drawn from a Quadrature Phase Shift Keying or 4-Quadrature Amplitude Modulation constellation;

computing a squared magnitude of the correlation sequence;

low-pass filtering the squared magnitude of the correlation sequence to provide a low-pass filtered correlation signal;

delaying the low-pass filtered correlation signal to provide a delayed low-pass filtered correlation signal;

multiplying the delayed low-pass filtered correlation signal by a fixed predetermined threshold by first computing 10*log10(.), or an approximation of 10*log10(.), of each low-pass filtered correlation signal operand to provide a plurality of low-pass filtered correlation signal log operands and then adding each of the plurality of low-pass filtered correlation signal log operands to provide a multiplied correlation signal; and

comparing the multiplied correlation signal with the low-pass filtered correlation signal to provide a match/no match

comparison indicative of the possible end of a transmitted frame and performing a comparison a predetermined number of times before an end of a transmitted frame is determined.